Paper 17

Rice consumer attitudes in Spain : Case of Madrid and Catalonia

Authors :

BRIZ J.
DE FELIPE I.
Departament Agricultural Economics - ETSI Agronomos - 28040 Madrid - SPAIN
Tel : +34 13365791
Fax:+34 13365797 - Mail : jbriz@eco.etsia.upm.es

GUERRERO L
IRTA. Monells Gerona - SPAIN.
Mail : guerrero@monells.irta.es

Abstract

Consumer attitudes may be analyzed in several scenarios : As sensory evaluation test and consumer reaction at the retail-buying place or at home, among others.

The aim of this paper is to combine different ways of analysis of rice attitude and sensory test, with different procedures : The consumer's opinion in the city of Madrid (at retail level and sensory test) and the region of Catalonia (through a consumer panel analysis).

The sensory evaluation study was done in Madrid, with a sensory test, following several steps : definition of the problem, test design, instrumentation and interpretation of results.

The global analysis may appear too ambitious, in the way of having a consumer attitude mix, the influence of sensory perception on the buying attitude.

We know that measuring instruments are quite variable over time and prone to bias (Meilgaard 1991) therefore we should be able to mixture the different results.

The duel is how they interact among them. How important are the relationship between physical stimulus and responses, and the significance of the marketing mix variables (price, product, promotion and place) in the consumer attitude buying a product.

Keywords

- Rice, quality, competition, consumer, attitude, evaluation, researches
- Spain

Introduction

Rice is a staple food with a great tradition on the Spanish market. The historical origin of rice cultivation may be dated 5000 years ago, in the Asian countries where "Oriz Sativa " was a wild plant.

In Spain the traditional rice crop came through the Mediterranean trade, and the Arab culture started this activity in the Mediterranean cost and Andalucian areas. Nowadays is well spread in several regions, with traditional way of cooking and great variety of dishes. However, we may perhaps identify the "paella " as the most international well-known "rice dish".

The research we present, tries to analyze the rice market in Madrid and Catalonia, focusing its attention on consumer behaviour opinion, consumption habits, and taste.

Madrid is a good market approach of the Spanish market as one of the most representative cities in Spain, because of the number of persons, great variety of the population, with representations of all the regions.

The study in Madrid within the framework of "Quality and competitiveness of European Rices" (Concerted Action AIR 3-PL93-2518 of the European Union) had two different stages, A and B, that we will describe later on, and a consumer analysis at a retail level.

Methodology

As a first step of the consumption inquiry, we have developed two main activities : A market analysis at retail level, according with the guidelines of the "Italian team" and the taste and consumer attitude, with inquires at the consumer following the orientation of the "French team" of François d'Hauteville.

We should pointed out that some adaptations have been made to the Spanish particular situation, but in any case the main outlines have been accomplish, in order to be able to compare with the European partners.

On the market analysis at retail level on Madrid there is a short introduction about the general characteristics of the rice, the nutrition value and the culture related with the rice in Spain, with some indications about the more popular types of rice in our market. After we include the results of 200 inquiries carried on to the consumers at random sample in different districts of Madrid.

The questions to the consumers at the retail level, were in relation with : type of rice they buy, quantity, country and area of origin, attributes and factors influencing their decision, more popular commercial brands, price strategies on distribution areas, promotion activities.

In chapter 3, followed the schedule provided by the French delegation (M d'Hauteville). According with Meilgaard, the methods developed on sensory test may serve economics interest. "Sensory testing can establish the worth of a commodity or even its very acceptability. Sensory testing evaluates alternative courses in order to select the one that optimizes value for money. The principal uses of sensory techniques are in quality control product development and research".

We should add that sensory testing may be a useful instrument to develop a product and give basic information to some marketing strategies, such as advertising and promotion, price policy discrimination, competitive position in relation with other suitable products.

One of the goals in this paper is to set a conjoint analysis of different approaches of market research : Sensory testing and consumers interviews related with buying behaviour.

The sensory study was carried on following several steps in co-ordination with other European partners : Project objective,

test objective, sensory properties of the samples, design the test, conducting the test in Madrid, analyze the data and finally interpretation of results, with the goal of finding the more efficient method, providing useful information to entrepreneurs and institutions.

There are two different stages (A and B) analyzing Blanc Japonica, Blanc Indica, Blanc Basmati, Indica etuve(17 cooking mn), Indica etuve (10 cooking mn) and etuve Uncle Ben's rice, 6 different varieties in stage A and attitudes and knowledge about types of rices and other products in stage B.

The interest of the topic has several scenarios :

- a) The best adaptation of supply to the demand. Through a better understanding of consumer preferences, rice producers may produce adequate varieties.
- b) Consumer behaviour analysis may give the basis for an adequate marketing strategy oriented towards an increase in consumption.

Part A of the project was carried out in the restaurant of the ETSI Agrónomos (Universidad Politécnica de Madrid) in two different days with the collaboration of the National Association of Housewives and other individual people. In total, there were 91 people that tasted the rice, in two different shifts of 44 and 47 people.

The results that we present here are orientations, in the way that the sample of people selected does not have statistic significance over all the population. However, we considered it of interest to know the appreciation of the consumer evaluation (Questionnaire A) and consumer behaviour (Questionnaire B).

In the A questioner, we selected two different groups. The first group was a representation of the housewives, with experience in cooking and preparation of different meals. The second group was a more heterogeneous group, with professionals, students and workers. With this segmentation we may be able to compare the opinion of "consumers expertise in cooking" (housewives) to "ordinary consumers".

B Questionnaire analyze consumption and purchase patterns, brand knowledge and rice variety, among other aspects.

A sample of 80 persons was selected among the several districts of Madrid, trying to balance the different characteristics (demographics, age, sex, etc.). Basic data has been analyzed through graphical and statistical instruments (mean, standard derivation) in order to give a general view of the questions.

In general, the collaboration of the interviewed people has been very positive, but some questionnaires have been rejected due to the inconsistency in the response.

The third part of the research includes a regional analysis of the Catalonia market. We were able to get answer from 391 consumers, using a permanent panel of consumption of 556 persons.

Results

Section A : Tasting of rice varieties in Madrid

It is a consumer preference analysis with opinions about the attributes of 6 rices, blind-tested.

The data of the questionnaire was seized with the FIZZ Program at Clermont Ferrand (INRA- Their team).

The recruitment of part A has been done through public notice and with the collaboration of the Asociacion de Amas de Casa de Madrid, as we mentioned before. We offered some books tokens as an incentive.

Some balance in the varied sample of 91 persons was booked.

The identification of variables is :

X1 = 785 = Blanc Indica rice (Thai-Bonnet variety). 538 Rice row.
X2 = 020 = Blanc Basmati rice. 397 rice row.
X3 = 586 = Indica etuve rice (10 mint. cooking). 442 rice row.
X4 = 035 = Etuve Uncle Bend´s (10 mint. cooking). 457 rice row.
X5 = 801 = Blanc japonica rice (Ariete variety). 877 rice row.
X6 = 305 = Indica etuve rice (17 mint. Cooking). 369 rice row.

As a first step of analysis we will give some highlights of the market according with significant parameters :

Consumption trend may be considered in relative terms of different types of rice, as index :
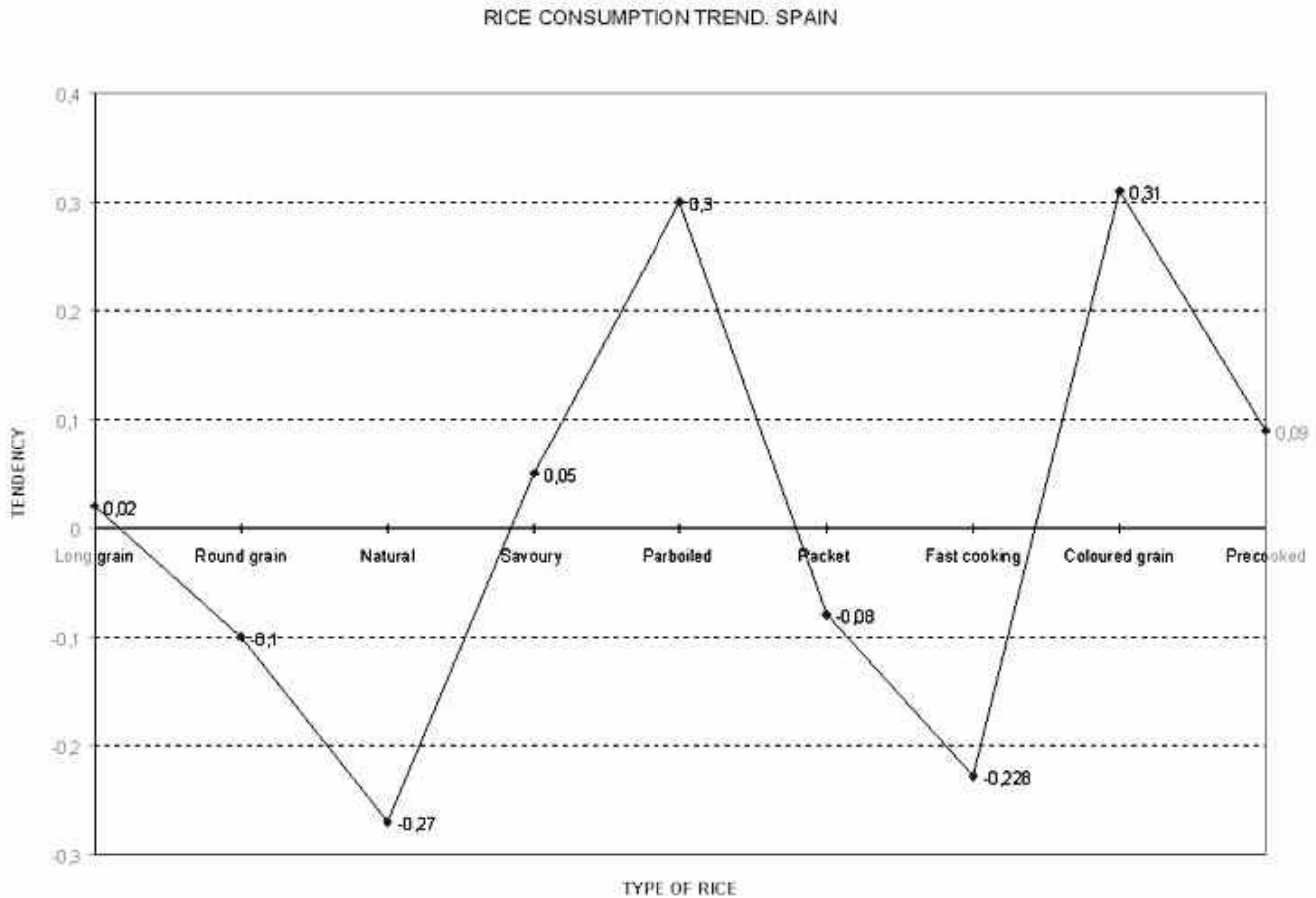
$CT = PI - PD / TP$

Where :
    CT :Consumption trend
    PI : Number of persons that express the rice consumption increase.
    PD : Number of persons that express the rice consumption decrease.
    TP: Number total of persons
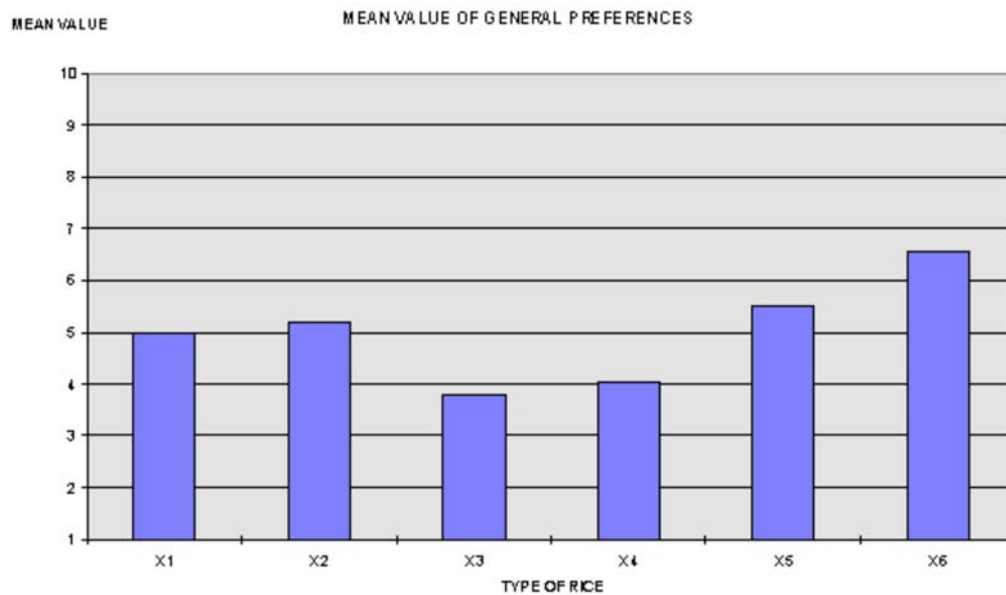
Rice consumption trends, Spain

RICE CONSUMPTION TREND. SPAIN

Q1A general preferences

The valuation order is : (more appreciated) X6, X5, X2, X1, X4, X3 (less appreciated).

The valuation order is : (more appreciated) 305, 801, 020, 785, 035, 586 (less appreciated)

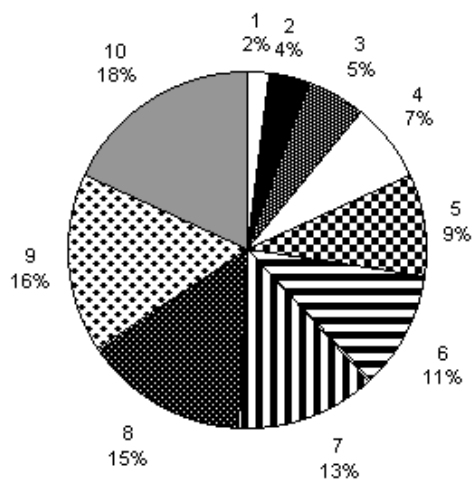| Type of rice	X1	X2	X3	X4	X5	X6
Mean value	4.97	5.2	3.77	4.02	5.51	6.55
Mode	7	6	2	2	5	6

Mean value of general preferences

The following graphics show relative frequencies of the values given to the different type of rice :
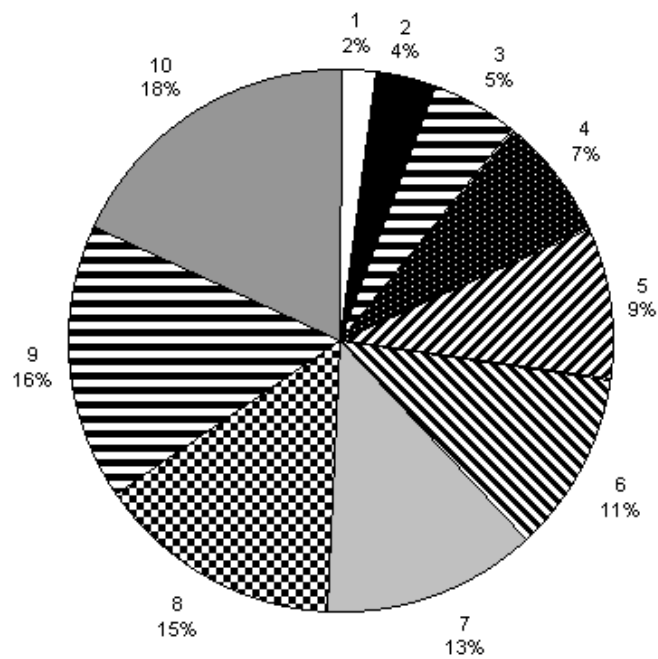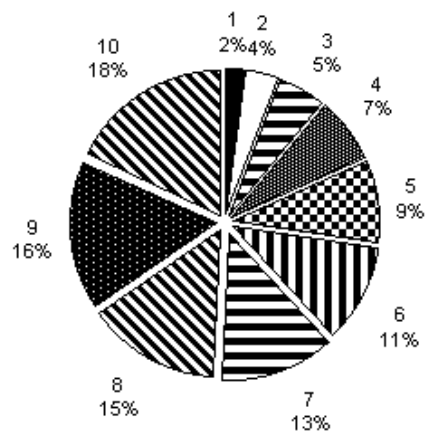
      1.Less appreciated

      10.More appreciated

(X1) Percent values for rice 785, Spain

(X2) Percent values for rice 020, Spain

(X2) PERCENT VALUES FOR RICE 020.SPAIN

(X3) Percent values for rice 586, Spain

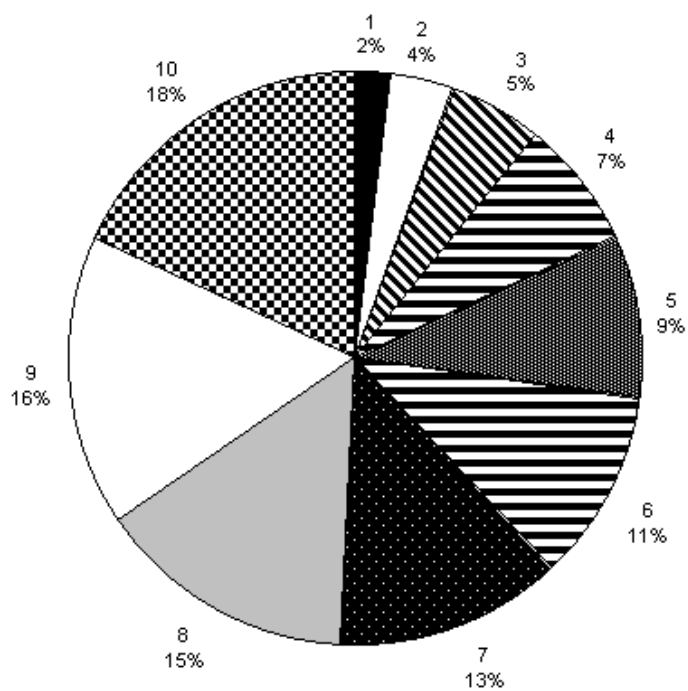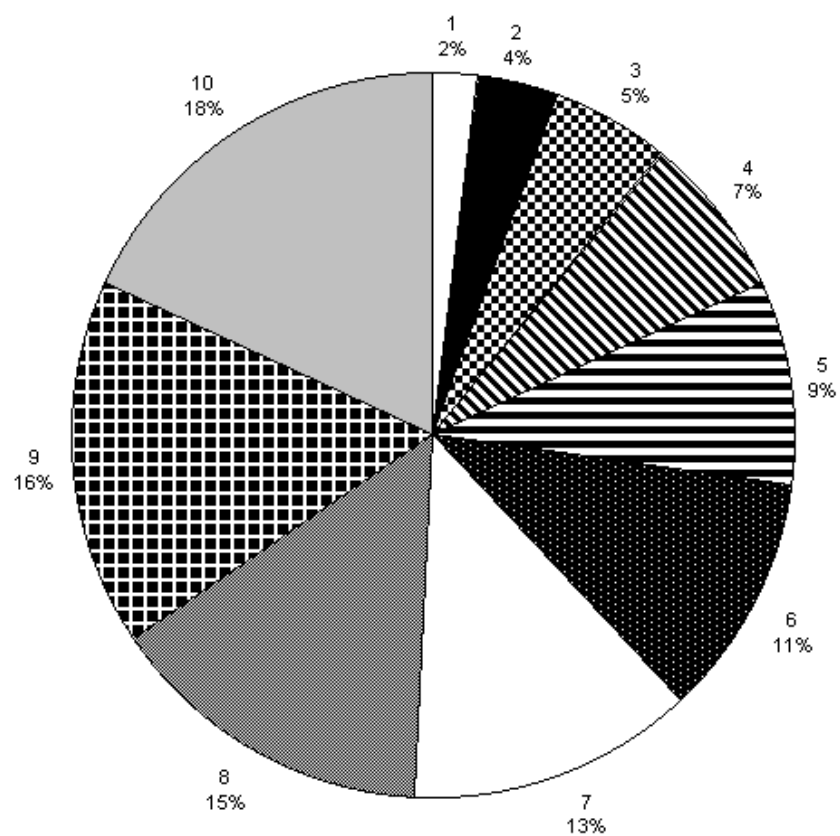**X3 PERCENT VALUES FOR RICE586.SPAIN**
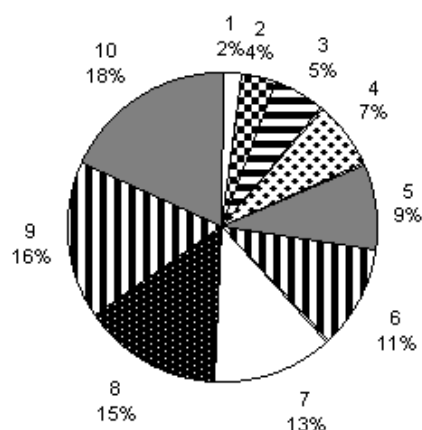

(X4) Percent values for rice 785, Spain

X4 PERCENT VALUES FOR RICE 035 . SPAIN

(X5) Percent values for rice 801, Spain

X5 PERCENT VALUES FOR RICE 801. SPAIN

(X6) Percent values for rice 305, Spain

X6. PERCENT VALUES FOR RICE 305. SPAIN

Q2A positive/negative opinions about tested rice

The main attributes of the different types of rices can be summarized in the following table :

VARIETY	WHAT YOU LIKE, STRONG POINTS	WHAT YOU DISLIKE, WEAK POINTS
x7 (785)	Flavor, pleasant texture and separated grains	Sticky, pasty
x8 (020)	Flavor, pleasant texture and separated grains	Little taste Dry texture, undercooked
x9 (586)	Separated grains and nice flavor	Dry texture
x10 (035)	Pleasant aspect and separated grains	Dry texture and rubberlike
x11 (801)	Pleasant aspect, separated grains and flavor	Sticky, pasty
x12 (305)	Separated grains and flavor	Dry texture

The attributes more considered are texture, separated grains and flavor. It is curious that soft texture appears as a positive or negative attribute depending on the person, there is not a general opinion about, it can be observed in rice 785. In the same line, flavor appears as positive and negative in rice 020, which is interpreted in different way.

Rices 586 and 035 are considered very similar but it is found flavor in rice 586 and rice 035 is considered rubberlike which make them different.

The flavor is considered definitively as positive in rice 801 and 305.

Q3A positioning of rice

The following graphics show expressions that may describe each tested rice. The characteristics considered and the way of test the rice is :

Characteristics (value =1)
Imaginative, special
Nourishing
Not exotic
Natural
Difficult to cook
Modern
Sophisticated
Healthy
Very digestible

Characteristics (value = 7)
Common, ordinary
Not so nourishing
Exotic
Artificial
Easy to cook
Old type
Not sophisticated
Not so dietetic
Difficult to digest

The values represented are mean values for each rice :

Positioning of rice 785, Spain

POSITIONNING OF RICE 785. SPAIN
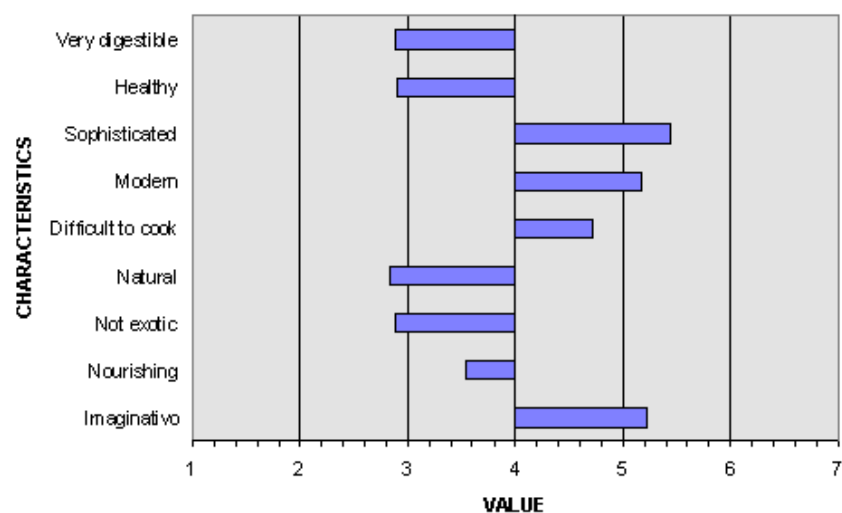
Positioning of rice 020, Spain

POSITIONNING OF RICE 020. SPAIN
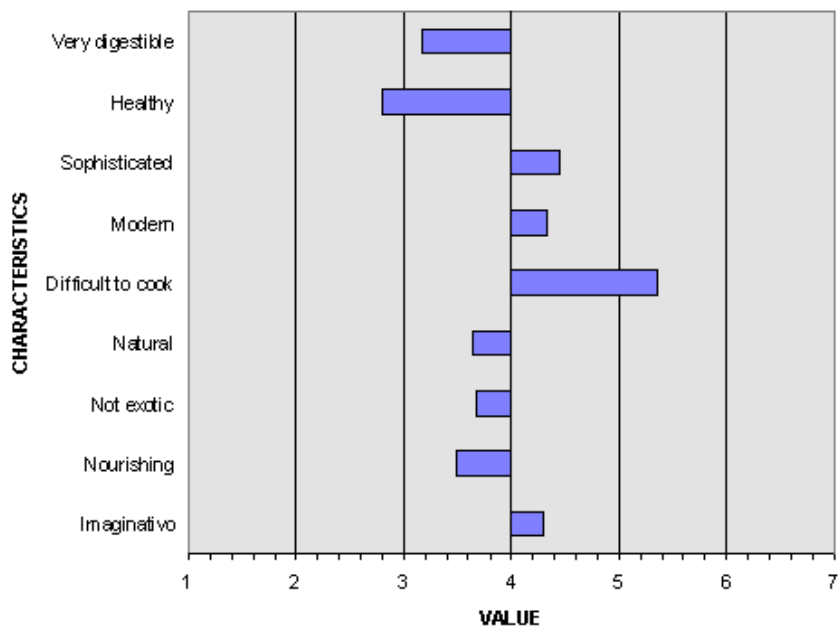
Positioning of rice 586, Spain

POSITIONNING OF RICE 586. SPAIN

Positioning of rice 035, Spain

POSITIONNING OF RICE 035. SPAIN

Positioning of rice 801, Spain

POSITIONNING OF RICE 801 . SPAIN

Positioning of rice 305, Spain

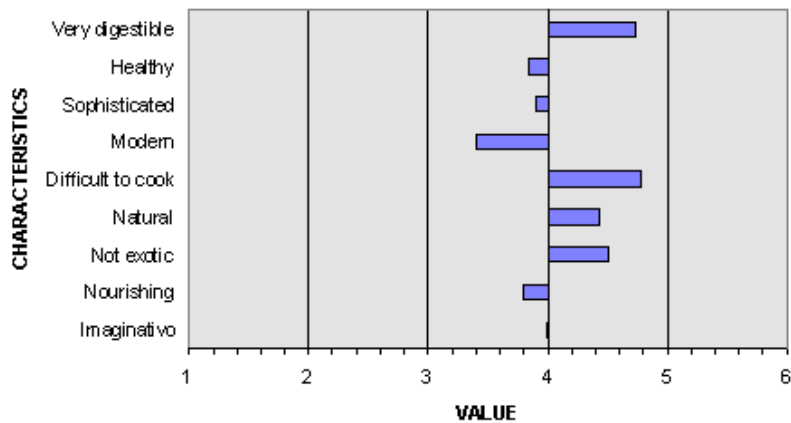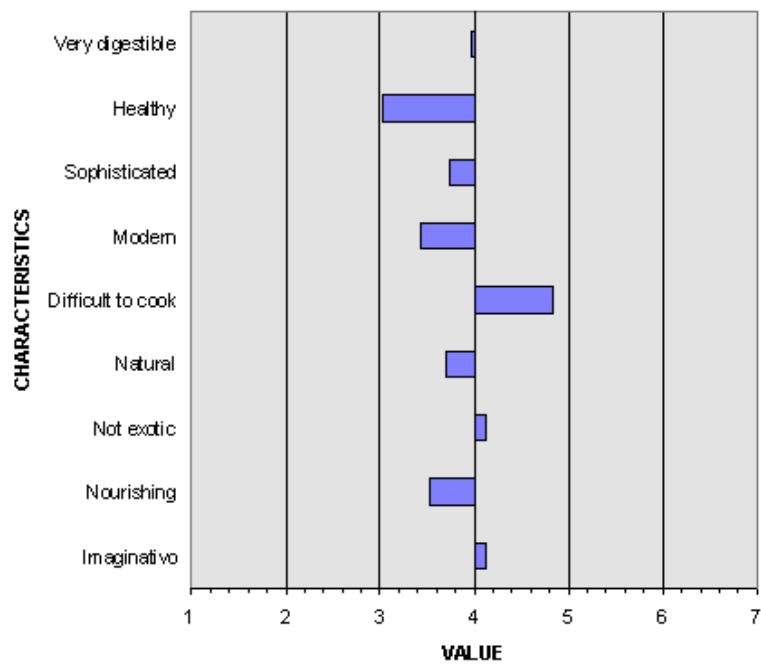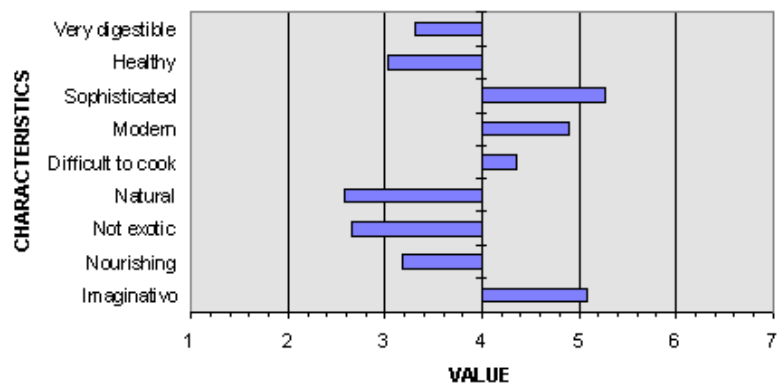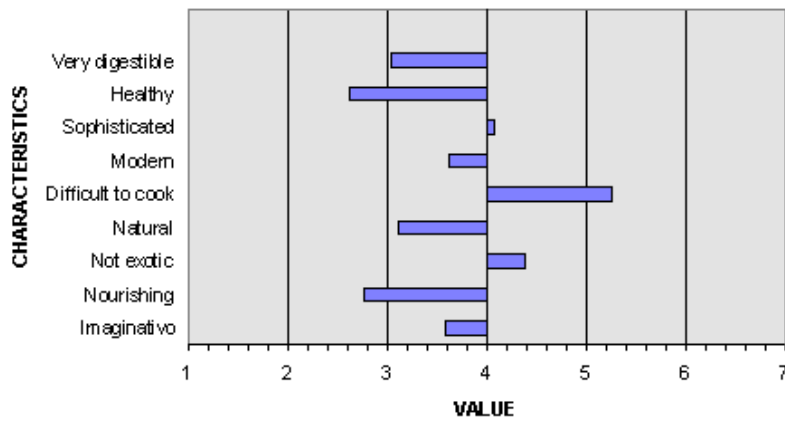## POSITIONING OF RICE 305 . SPAIN

(Bar chart: CHARACTERISTICS vs VALUE, scale 1 to 7)

- Very digestible
- Healthy
- Sophisticated
- Modern
- Difficult to cook
- Natural
- Not exotic
- Nourishing
- Imaginativo

VARIETY 785 Is considered as **unsophisticated** and **unimaginative** and therefore, **natural and healthy**.

VARIETY 586 Is considered as a **indigestible, artificial and easy to cook** rice.

VARIETY 020 Appears as a variety very **healthy** and **easy to cook and common**.

VARIETY 035 It is **easy to cook** .

VARIETY 801 It is **unsophisticated and unimaginative** and therefore, **natural and healthy**.(similar characteristics to the variety 785).

VARIETY 305 Appears as the better rice because it is **digestible, healthy, and easy to cook natural and nourishing**.

It is notable that the difference between this variety and rest is quite large being the most appreciated

Q4A type of dish.

We have tested the views as to how suitable or appropriate consumers feel each rice for different types of dishes.

The following table represents in quantitative terms the convenience of each rice for each plate :

RELATIVE FREQUENCIES:						
	RICE 785	**RICE 020**	**RICE 586**	**RICE 035**	**RICE 801**	**RICE 305**
Starter or Salad	**X67**	**X68**	**X69**	**X70**	**X71**	**X72**
%	13%	19%	12%	19%	13%	23.6%
With cooked Pork meat	**X73**	**X74**	**X75**	**X76**	**X77**	**X78**
%	17.6%	13.8%	9.4%	20.7%	18.2%	20.1%
Served with grilled fish	**X79**	**X80**	**X81**	**X82**	**X83**	**X84**
%	16%	19.6%	11.6%	16.9%	13.3%	22.3%
Served with fish and sauce	**X85**	**X86**	**X87**	**X88**	**X89**	**X90**
%	17.3%	14.6%	10%	18.6%	19.3%	20%
Served with grilled meat	**X91**	**X92**	**X93**	**X94**	**X95**	**X96**

%	11.3%	13.6%	11.3%	19.6%	15.9%	28%
Served with poultry	**X97**	**X98**	**X99**	**X100**	**X101**	**X102**
%	17.4%	13.4%	18.2%	9.5%	19%	22.2%
Served with a traditional meal	**X103**	**X104**	**X105**	**X106**	**X107**	**X108**
%	16.9%	13.3%	6.6%	15.1%	26%	21.8%
Served with an exotic dish	**X109**	**X110**	**X111**	**X112**	**X113**	**X114**
%	9.6%	14.8%	20%	18.5%	11.8%	25.7%
As a dessert	**X115**	**X116**	**X117**	**X118**	**X119**	**X120**
%	25.4%	11.9%	6.2%	10%	28.3%	18.2%

In general, we can say rice 586 is the one found less appropriate for every dish. Rice 305 is found the best appropriate for most of the plates except as a dessert. The rices with more suitability are 785 and 801. It is curious also that rice 785 appears as less indicated in case of exotic dishes and to be served with grilled meat.
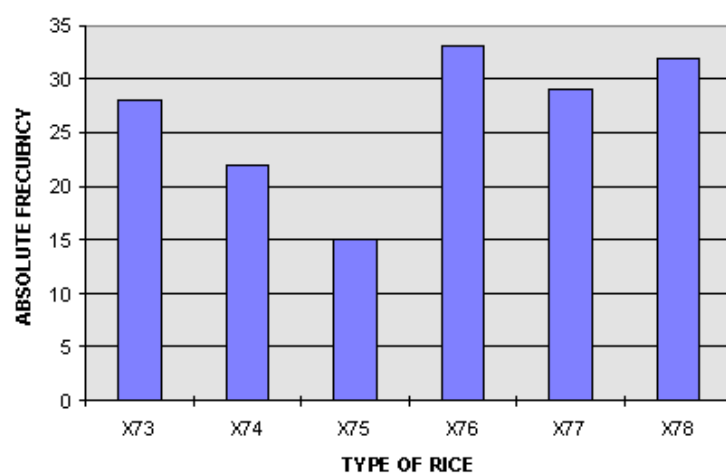
The following graphics show the suitability of each rice for each type of dishes, they are expressed in absolute frequencies of a total of 91 interviews :

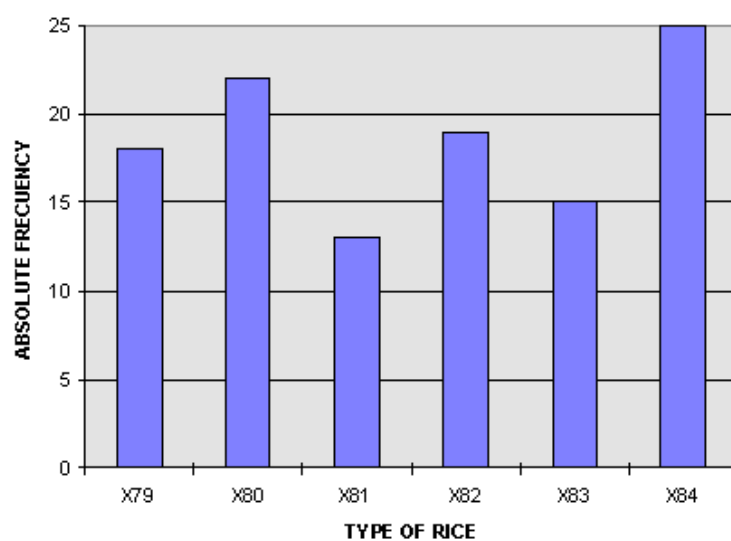Rates of rices as starter or salad, Spain

RATE OF RICES AS STARTER OR SALAD . SPAIN
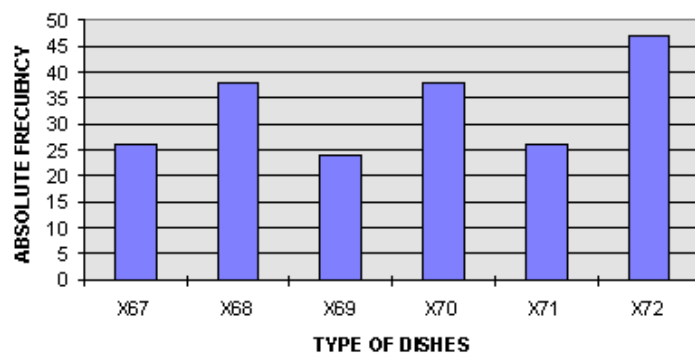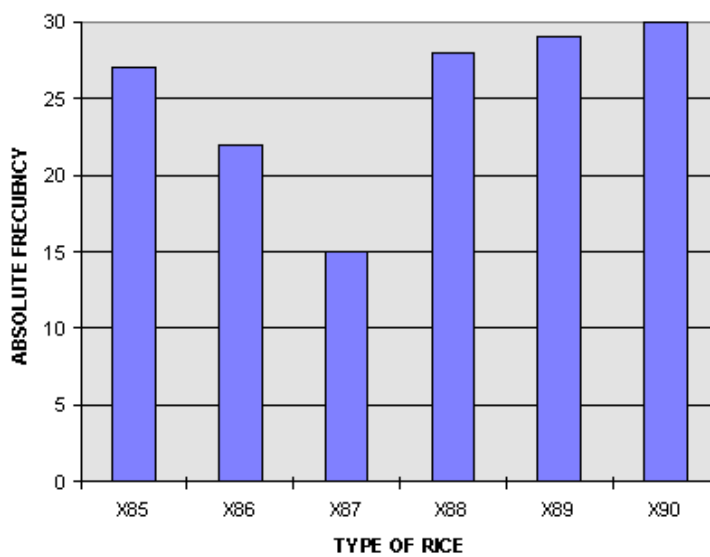
Rates of rices with cooked pork meat, Spain

RATE OF RICES WITH COOKED PORK MEAT. SPAIN

Rates of rices served with grilled fish, Spain

RATE OF RICES SERVED WITH GRILLED FISH. SPAIN

Rates of rices served with fish and sauce, Spain

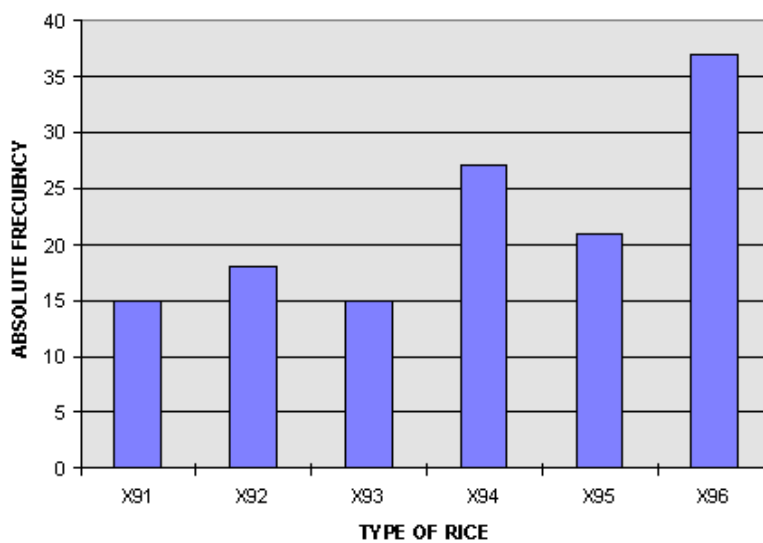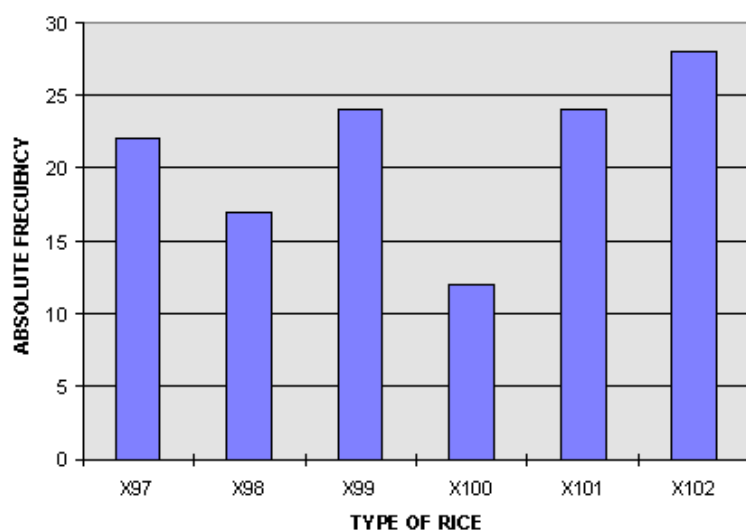## RATE OF RICES SERVED WITH FISH AND SAUCE. SPAIN

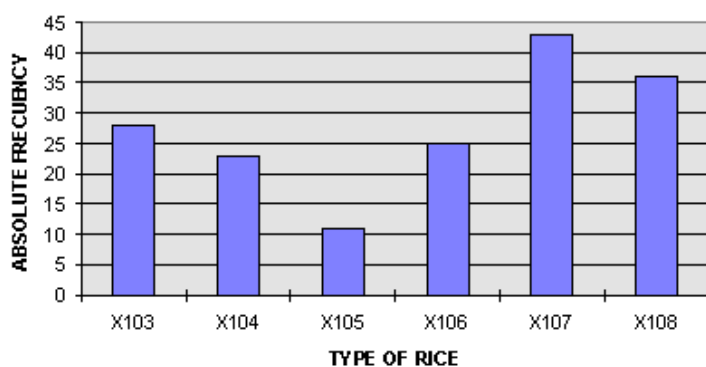Rates of rices served with grilled meat, Spain

RATE OF RICES SERVED WITH GRILLED MEAT. SPAIN

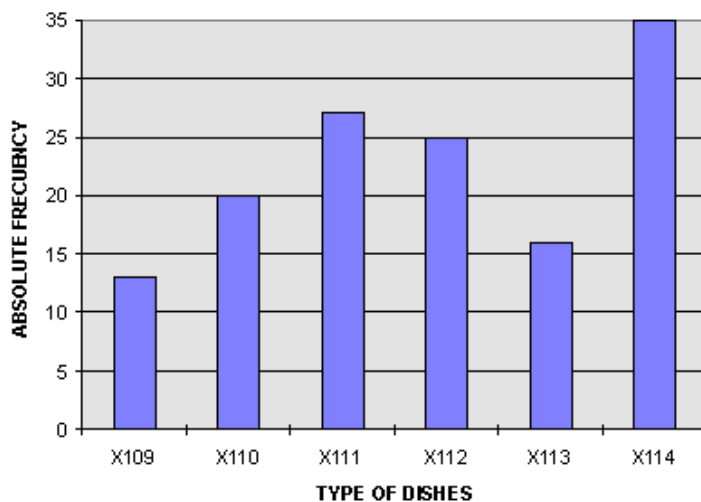Rates of rices served with poultry, Spain

RATE OF RICE SERVED WITH POULTRY. SPAIN

Rates of rices served with a traditional meal, Spain

RATE OF RICE SERVED WITH A TRADITIONAL MEAL . SPAIN

Rates of rices served with an exotic dish, Spain

RATE OF RICES SERVED WITH AN EXOTIC DISH. SPAIN

Rates of rices served as a dessert, Spain

RATE OF RICE AS A DESSERT. SPAIN
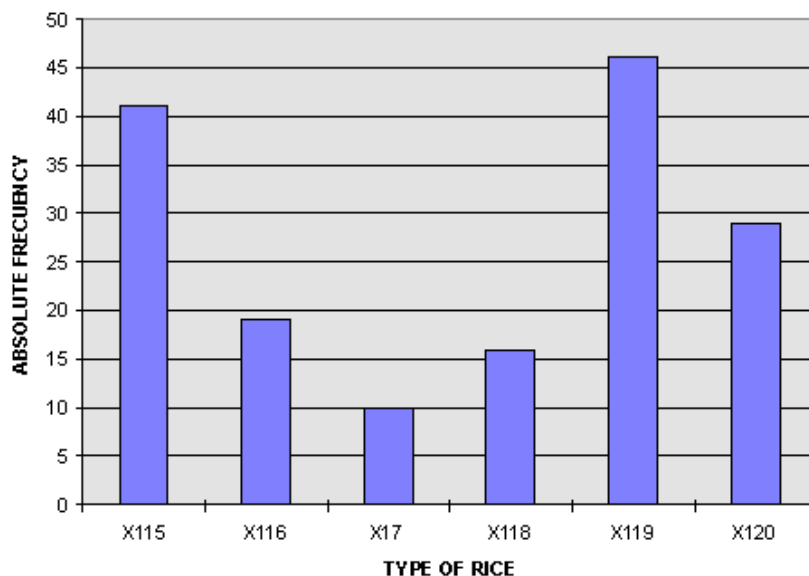
In quantitative terms, most valued rices are 305, 020 and 035. These are the rices that were more appropriate and have been found appropriate for a greater number of plates

Q5A consumption situation.

Certain rice may be best served during different consumption situations; we have tested 91 consumers' views as to how suitable they feel each rice variety for each consumption situation.

It can be observed that **rices, as a general rule, are used more to prepare ordinary foods than special foods, except for the rices 586, 035 and 020, which are preferred for special food**.

Rice 785 is accepted as an ordinary food but not as a special food.

 1= LESS SUITABILITY   10 = MORE SUITABILITY

RATE OF RICES IN TERMS OF SUITABILITY FOR EACH DIFFERENT CONSUMPTION SITUATION. MEAN VALUE (1-10) :						
Type of rice	RICE1	RICE2	RICE3	RICE4	RICE5	RICE6
Current meal	x121	x122	x123	x124	x125	x126
Mean value	5.74	4.58	2.78	4.37	6.04	6.59
Special meal	x127	x128	x129	x130	x131	x132
Mean value	4.28	4.75	3.6	4.93	5.02	6.38

Rate of different rices for a current meal
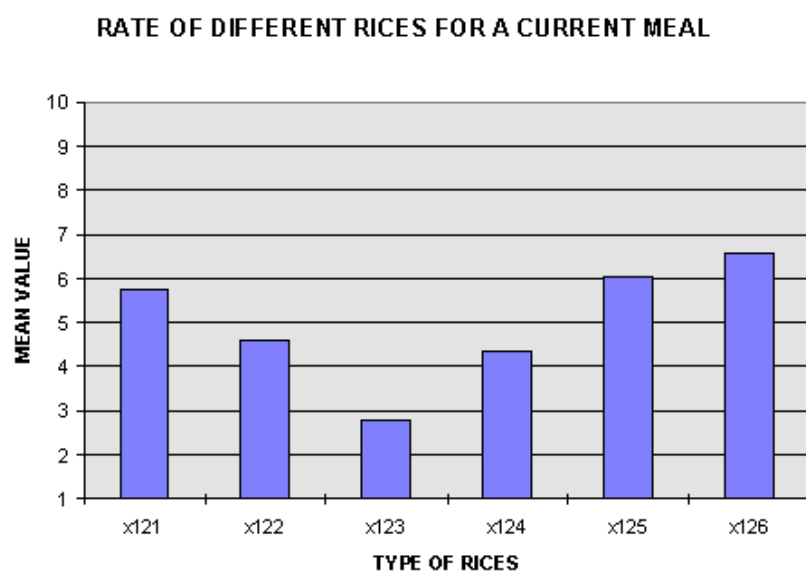
Rate of different types of rices for a special meal
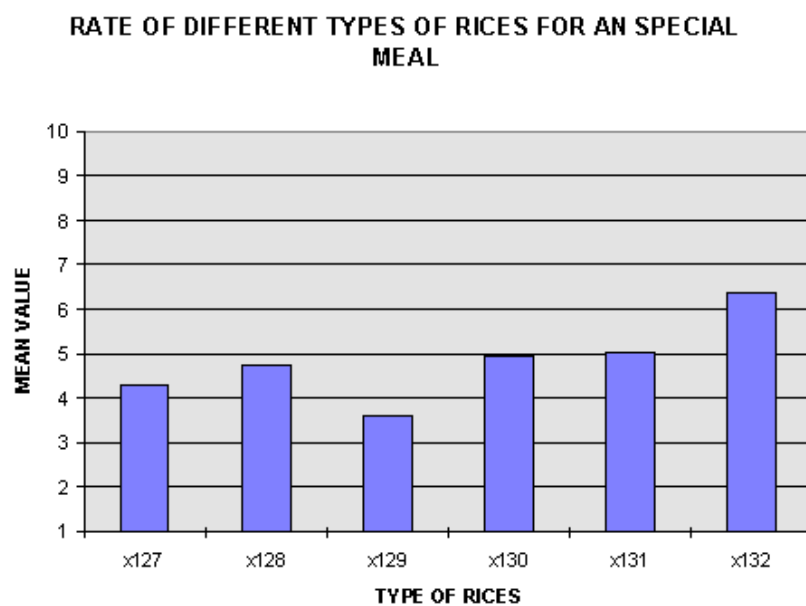
Q8A general preferences in raw rice

We have tested now raw rice varieties indicating the judgement by giving a grade to each rice from 1 (less valued) to 10 (more valued).

The valuation order is : (more value) 877, 397, 538, 442, 369, 457 (less value).

JUDGMENT GIVEN TO DIFFERENT TYPE OF RICE IN TERMS OF RELATIVE FREQUENCY (%) :

| Type of rice	1	2	3	4	5	6	7	8	9	10
x171	4.7	7.1	7.1	10.7	14.2	2.3	23.8	8.3	11.9	9.5
x172	14.4	14.4	14.4	9.6	13.2	14.4	8.4	4.8	4.8	1.2
x173	3.7	16.4	11.3	18.9	25.3	11.3	6.3	2.5	2.5	1.2
x174	5	13.9	15.1	20.2	12.6	13.9	11.3	6.3	1.2	0
x175	4	4	9.3	10.6	12	22.6	16	9.3	10.6	1.3
x176	6.8	4.1	13.6	6.8	8.2	23.2	13.6	9.5	4.1	5.4

MEAN VALUE OF DIFFERENT TYPE OF RAW RICE:

Type of rice	x171	x172	x173	x174	x175	x176
Mean value	6.04	4.31	4.41	4.48	5.74	5.65

General preferences in raw rice

GENERAL PREFERENCES IN RAW RICE
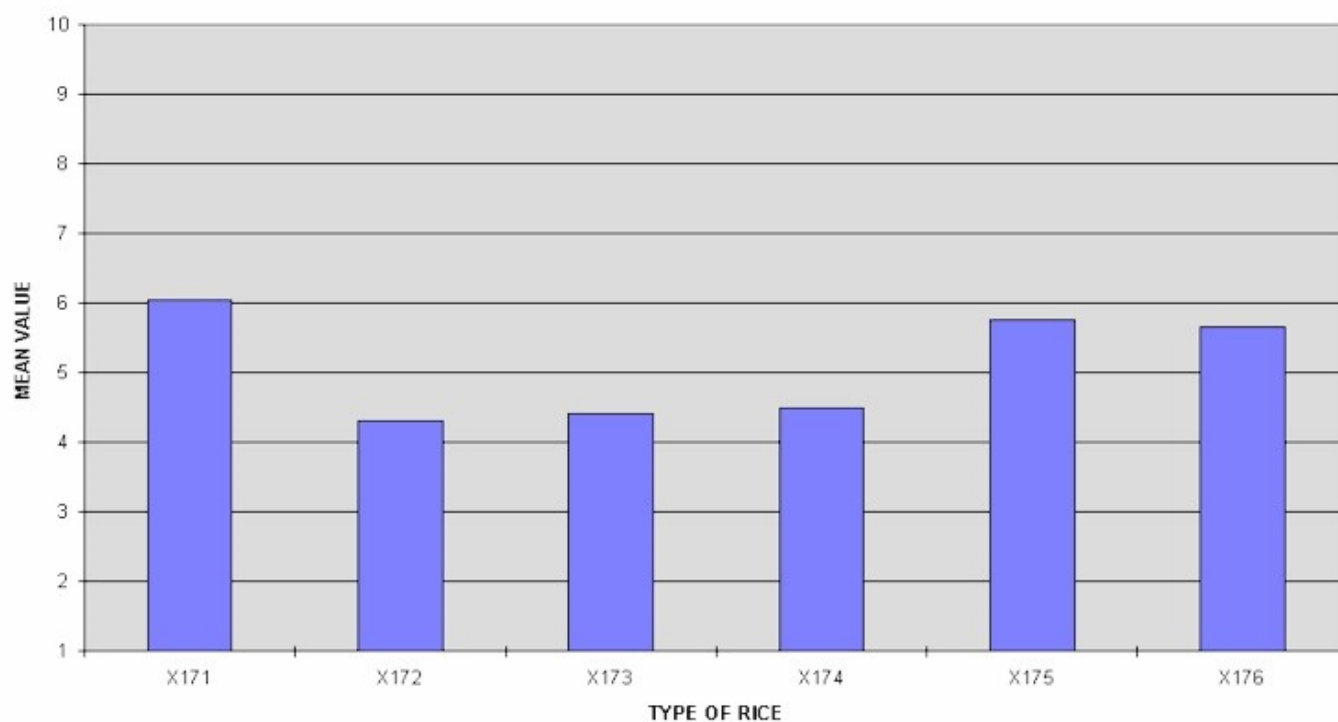
FREQUENCY OF RICE CONSUMPTION

Another significant factor to be considered in order to change some habits is the frequency of consumption. As a proxy variable we may use the "Penetration Rate":

PR = NC / NPI

Where :
    PR = Penetration rate
    NC = Number of consumer of this type of rice
    NPI = Number of persons interviewed.

As we appreciate in the following graphic, the **higher penetration** is for **types x235 (Long grain), x239 (Round grain) and x242 (Packed rice), and the fewer x240 (Parboiled rice) and x241 (Coloured grain rice)**.

The keys are :

x235 = Long grain	x240 = Parboiled rice
X236 = Fast cooking rice	x241 = Colored rice
X237 = Savory rice	x242 = Packed rice
X238 = Natural rice	x243 = Precooked rice
X239 = Round grain	x244 = Others

Penetration rate per type of rice in Madrid, Spain
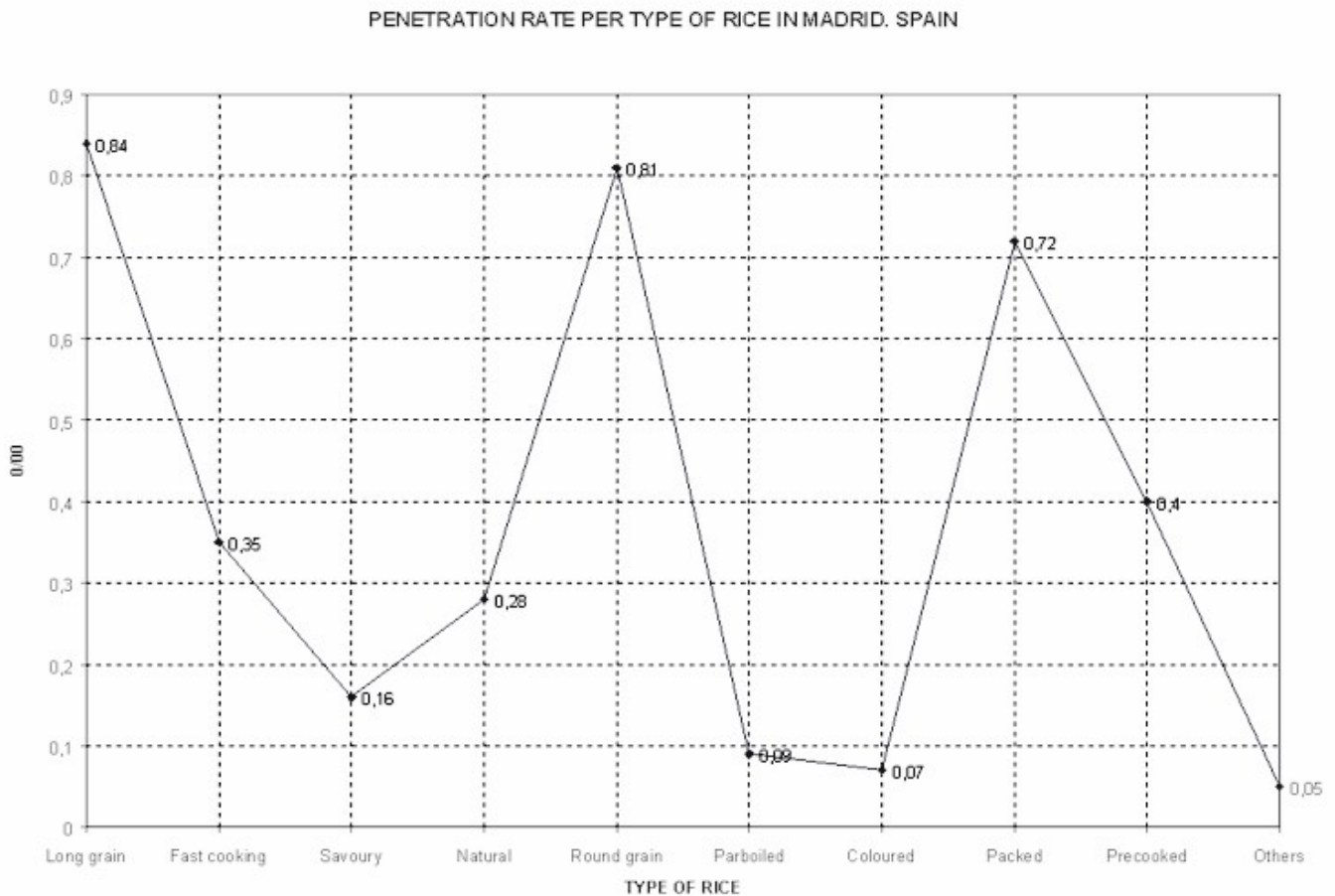
THE FOLLOWING GRAPHICS REPRESENT THE JUDGMENT GIVEN TO DIFFERENT TYPE OF RICE IN TERMS OF RELATIVE FREQUENCY (%) :

Percent value for rice 877 (X171), Spain

PERCENT VALUE FOR RICE 877(X171). SPAIN
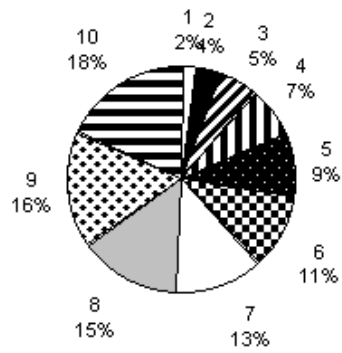
Percent value for rice 457 (X172), Spain

PERCENT VALUE OF RICE 457(X172). SPAIN
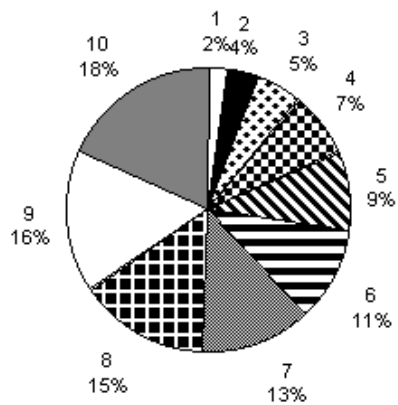
Percent value for rice 369 (X173), Spain

PERCENT VALUES OF RICE 369 (X173). SPAIN
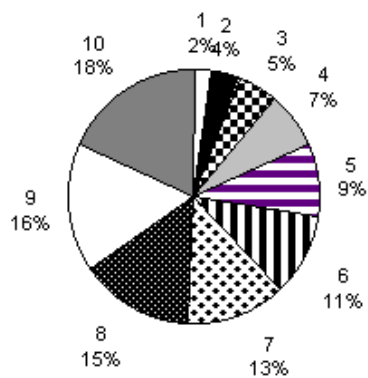
Percent value for rice 442 (X174), Spain

PERCENT VALUES OF RICE442(X174). SPAIN

Percent value for rice 538 (X175), Spain

PERCENT VALUES FOR RICE538 (X175). SPAIN

Percent value for rice 397 (X176), Spain

PERCENT VALUES OF RICE 397 (X176). SPAIN

Q9A evaluation of the properties of raw rice

Now we have evaluated different properties of raw rice and how the consumer recognize it on each rice variety :

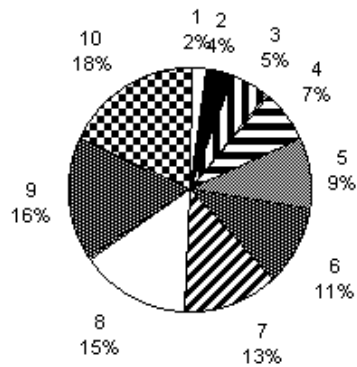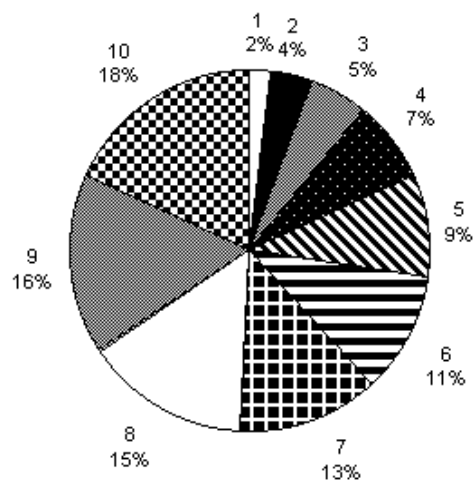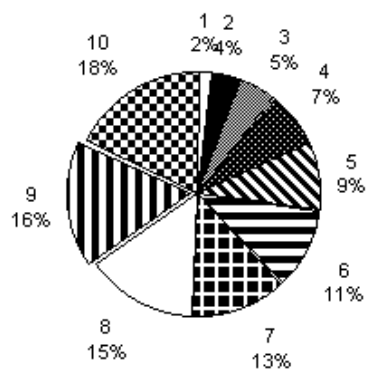| RESPONSES GIVEN FOR DIFFERENT PROPERTIES OF A TOTAL OF 91 INTERVIEWS:						
ABSOLUTE FREQUENCY	Fast cooking	Easy drying	Does not stick	Has flavor	Keeps firm	No idea
877	30	16	33	26	41	9
457	21	27	39	20	46	15
369	16	23	49	17	44	11
442	29	23	40	14	38	11
538	30	23	37	37	30	7
397	40	16	34	34	25	13

The two attributes more clearly recognized all raw rice varieties are "It keeps firm "and" it doesn't stick.

MORE REPRESENTATIVES CHARACTERISTICS OF EACH RAW RICE:	
RICE 877	Keeps firm and do not stick
RICE 457	Keeps firm and do not stick
RICE 369	Keeps firm and do not stick
RICE 442	Keeps firm and do not stick
RICE 538	Has flavor and does not stick
RICE 397	Fast cooking

Cooking time is an important attribute in consumer's opinion. Therefore we have included the accumulative curves of Maximum and Minimum, for a "normal" and "special meal". The difference between maximum and minimum give us the margin or flexibility for the type of rice to be adopted.

In the following graphics we may appreciate how for a current meal "the higher margin" is around 12 minutes and for special meal there is a bigger margin (18 minutes).

Cooking times for current meal
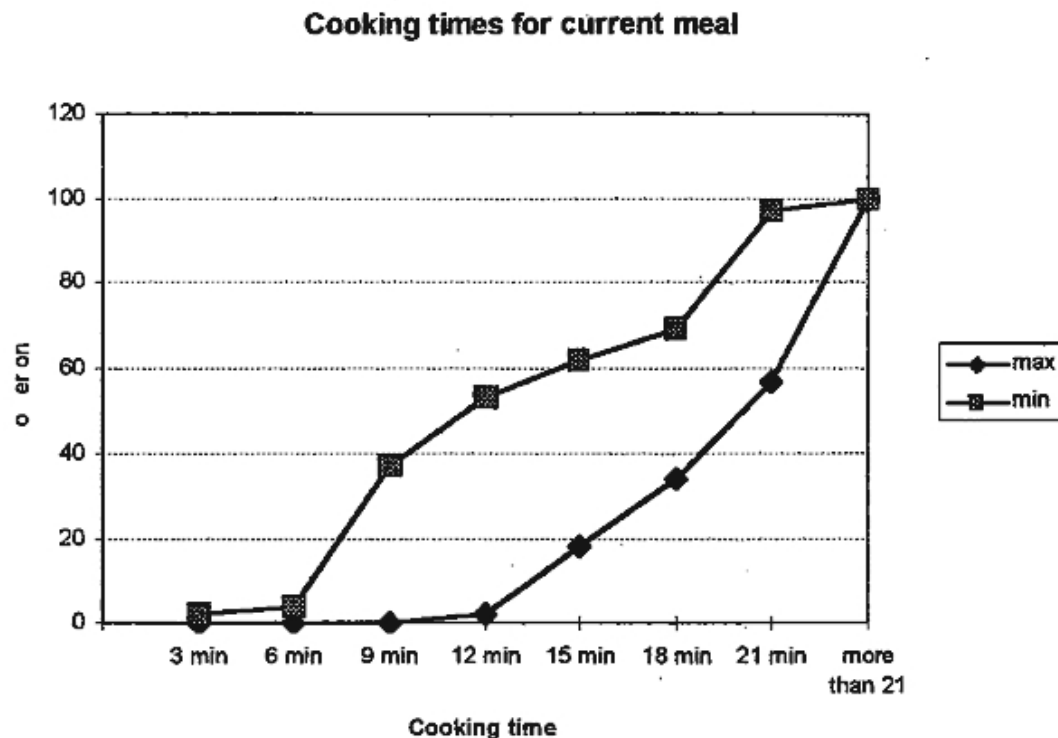
Cooking times for special meal

Cooking time for special meal
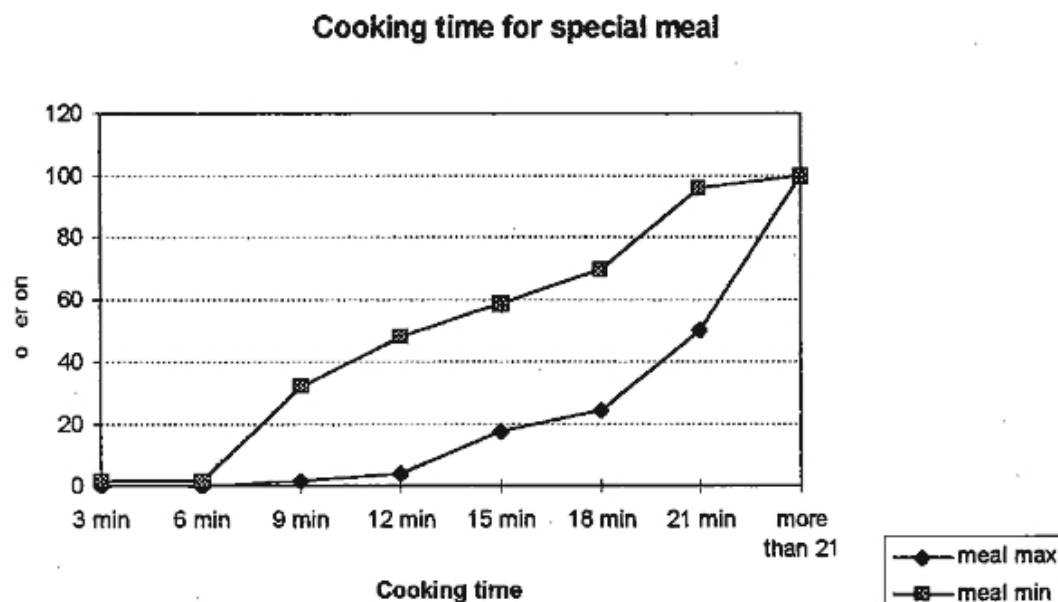
Rice consumption analysis in Madrid : market analysis at retail level in the metropolitan area of Madrid

Trying to identify consumer attitudes and purchasing behaviour, we should pay attention not only to explicit and traditional factors (income, prices), but also cultural tradition and general habits.

In our case, and considered as pilot experience we have focused the analysis in the Madrid area, due to practical facilities and also because of the great representation of the different Spanish regions.

With a group of University students at the Polytechnic University, a fieldwork of 200 personal inquiries were done to consumers in several districts of the city. The interviews were done at the retailer points due to the difficulties to do them at their personal home. We will point out some of the more significant results :
.

- 1) Type of rice usually bought by the consumer. Around 67,5% of the consumer usually buy "normal rice"(round). It is followed by the "long rice" (15,3%). The less accepted is the "precooked rice".
- 2) Container preferred by the consumer : The more generally accepted is paper (45,1%), followed by "card board" and plastic.
- 3) Quantity per unit (packet) preferred. The great majority prefer the 1 kilo, 2 kilo and others.
- 4) In relation with the country (or region) of origin 50% prefer « national rice», only 5% foreign rice. The others do not care about origin.
- 5) Factors and characteristics considered on their shopping decision. Quality and a well-known brand are the main factors (to 62% of the consumers). Others are influenced by the "special sales and promotions", or TV commercials.
- 6) Commercial Brand preferred. On this sample the more popular was SOS (57%) followed by Cigala and Brillante. Around 18% of the person do not have any fidelity to special brand, and they buy according with relative price and quality.
- 7) Some of the more appreciated attributes are : "adequate taste", good performance during the cooking (isolated grains, no stocked), and possibility to stay long time on the cooked process without negative alterations.
- 8) Some indications about price spread among different brand are given in the annex, with maximum, minimum and average price. The range is very wide, with 2 brands Nomen Extra and Vermont Carton at the peak (over 2556 pts) The minimum price is La Marina (129 pts).

Rice consumption analysis in Catalonia

In order to have a more general overview of the situation in Spain, a survey in a consumer panel was carried on.

With a universe or 556 consumers in the panel, the inquiries answered were 391, therefore the percentage of response was 70,3%, quite significant.

The profile of the population interviewed was :

- a) Gender :
  - 52% males
  - 48% females
  .
- b) Formation :
  - Basic studies, 32%
  - Medium " ,24%
  - High + superior, 44%
  .
- c) Age :
  - Less than 31 years, 36%
  - Between 30 and 45, 40%
  - Between 46 and 60, 17%
  - More than 60 7%
  .
- d) Place of residence :
  - Urban 76%
  - Rural 24%

Some of the results of the questionnaire were :

- a) How often do you consume rice in a week?
  - 1) Never 4%
  - 2) 1 or 2 times, 85%
  - 3) 3 or 4 times, 10%
  .
- b) Which rice attributes or characteristics do you prefer?
  - 1) Fast cooking, 89%
  - 2) No sticky, 13%
  - 3) Good taste 39 %
  - 4) No overcook 38%
  - 5) Others 1%

Homogeneous time of cooking
Complete grains (no broken)
Without phytosanitary products

- c) Which attributes or characteristics of the rice are more negatives?
  - 1) Short variety of dishes 16%
  - 2) May fat the consumer 19%
  - 3) Others 16%
  - 4) None 48%
  .
- d) Which is the usual way to consume rice?
  - 1) At home
    - Paella 51%
    - Accompanying other products 24%
    - Others
      - Salads
      - With fry eggs and tomato
      - With code
      - As dessert
      .
  - 2) At the restaurant
    - Paella 62%
    - "A Banda" 8%
    - Chinese food 19%
    .
  - 3) Home delivery
    - Sometimes 7%
    - Never 93%
    .
- e) Brand name more usually bought
  - SOS 33%
  - La Cigala 12%
  - Uncle Ben 2%
  - Others 53%

Conclusions

In this global analysis, we may try to get some conclusions, concerning the different analysis :

- A) Rice is a product considered adequate for ordinary meals, with strong relation with traditional menus.
  There are wide spread appreciation on meal as "paella" (more than 50% in Madrid and Catalonia) but we should pay attention to other regional consumers habits not mentioned here.. However, it is significant to consider a new market segment in the area of "special meals". Rice may be included as complement with other main products (meat, fish...). Promotion activities should be considered adequate on this area.

- B) Round grain rice is preferred by majority of the consumers. However there are some inconsistencies when describe the preferred attributes : Minimum cooking time (89% in Catalonia) and consistency and isolation of the grains(13% in Catalonia).

- C) Rice consumption trend in Madrid shows significant differences among types. This rise the question about reasons for that trend, whether is due to particular attributes, advertising or marketing strategies. Therefore we should pay attention on later studies. Similar question may be formulated on Penetration rate per type of rice in Madrid, quite different from one to another.

- D) Cooking time is becoming an important factor on consumer's buy decision. We know some economic theories (Becker) giving to time special relevance as a scarce element. Modern life with high occupancy, women involved on an outside home work.

- E) Fast food and home delivery are becoming very popular. However rice dishes with the exception of paella, are not very much demanded in Madrid and Catalonia.

- F) In relation with the Group A (rice taste) we may summarize :
  .
  - General preferences :
    The three main types of rice preferred by the consumer were by the following order : Indica etuve rice (17 min. cooking), Blanc japonica (ariete variety) and Blanc Basmati rice.
  - Opinions about tested rices :
    Among the positive qualities, the more appreciated were the taste and consistency and isolation of the grains. Color has been mentioned but not in a very extensive way. The more significant negative qualities were in the texture (hard and soft) and no taste.
  - Positioning of rices :
    The evaluation of the different types of rice gives a great preference for variety Indica Etuve rice (17 min. cooking), as healthy, easy to cook and digestive.
  - Type of dishes :
    The selection of the difference rices was classified by finding the suitability or unsuitability as a main dish, as accompany of meat or fish, salad or dessert. As a summary, the more suitable rices were the Indica Etuve rice (17 min. cooking), and Etuve Uncle Bens.
  - Consumption situation ::
    Consumers estimate that rice is more adequate for "ordinary meals" than for "special meal". The exceptions are types 3 and 4. This is a very interesting appreciation in the way that the increase of rice consumption in Spain should go towards the change of mentality, opening the possibility towards new uses of rice as "special meal".
  - Evaluation of the properties of rices :
    Some of the more significant characteristics of the rices were that they keep firm and it doesn't stick.

- G) In relation with the section B (Attitudes and knowledge of rice types and products) the general comment is that

there were too many questions.

- Some of the conclusions may be of interest to producers, giving orientation about the type of rice to produce. Others are more focused in marketing strategies. Brand is a significant factor in the process of purchasing.
- In the association of descriptors, rice creates variety and is cheap and easy to cook.
  Long, round and packet rice is the type more frequently recognised. Others (savory, parboiled or colored) are practically unknown. In this way promotions should be made for them in order to introduced them in the market.
- The most known brand was SOS, followed by La Cigala, in Madrid and Catalonia.
- Cooking times (minimum about 7-9 minutes) is still a restriction for rice consumption. Some consumers may value some advertising (around 5 minutes).
- In consumption, round grain rice is preferred. Perhaps there is an inertia effect as a consequence of the strong tradition from most people.
- In the opinion about staple foods, at main dish at home by order of importance were leguminous, rice, vegetable and pasta. The selection of one or another depends upon the occasion (with friends, special guest, and restaurants).
  Advertising may influence the relative importance of one staple food over the others. At this moment in Spain, there is a very dynamic campaign of advertising for pasta, with "Italian style". That may change the relative position.
- The frequency of rice consumption (1 to 3 per month) gives us the possibility to increase through adequate marketing strategies. The market potential is high and we should compare with situation in others areas where rice is almost a daily meal.
- Also there is a great brand loyalty (44% totally agree and 40% agree about" usually buy the same brand "). That gives certain confidence to the actual brand in the market and there is a strong barrier to newcomers.
- Supermarkets are by far, the retailers that provide greater proportion of rice. On the other hand, there is a great tendency to buy in the same place, usually supermarkets (76%). The analysis on buying attitude shows the more significant factors are brand and second price.
- No special references are given to "ecological attributes", but there are some comments no phytosanitary products in Catalonia.
- Among negatives aspects in rice, in Catalonia mentioned the short varieties of menus and "may fat the consumer"

References

Grunert, K. et all. (1996). Market orientation in food and agriculture. Kluweer Academic Publishers.
Meilgaard et all. (1991). Sensory evaluation techniques. CRC Press Inc. London.

Figures and tables summary

- Figure 1
- Figure 2

←Précédente 🏠 Accueil Remonter ↑ Suivante ➡